Bubbles of Water, before they began to exhibit their Colours to the naked Eye of a By-ſtander, have appeared through a Priſm, girded about with many parallel and horizontal Rings; to produce which effect, it was neceſſary to hold the Priſm parallel, or very nearly parallel to the Horizon, and to diſpoſe it ſo that the rays might be refracted upwards.

THE

THE SECOND BOOK OF OPTICKS.

PART II.

Remarks upon the foregoing Obſervations.

HAving given my Obſervations of theſe Colours, before I make uſe of them to unfold the Cauſes of the Colours of natural Bodies, it is convenient that by the ſimpleſt of them, ſuch as are the 2d, 3d, 4th, 9th, 12th, 18th, 20th, and 24th, I firſt explain the more expounded. And firſt to ſhew how the Colours in the fourth and eighteenth Obſervations are produced, let there be taken in any right line from the point Y, the lengths YA, YB, YC, YD, YE, YF, YG, YH, in proportion to one another, as the Cube-roots of the Squares of the numbers, $\frac{1}{1}, \frac{9}{16}, \frac{3}{5}, \frac{2}{3}, \frac{3}{4}, \frac{5}{6}, \frac{8}{9}, 1$, whereby the lengths of a muſical Chord to ſound all the Notes in an Eighth are repreſented; that is, in the proportion of the numbers 6300, 6814, 7114, 7631, 8255, 8855, 9243, 10000. And at the points A, B, C, D, E, F, *Fig.* 5.